

*Warren (J. C.)*

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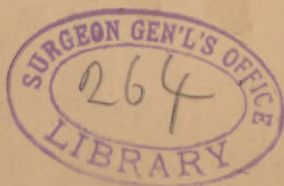
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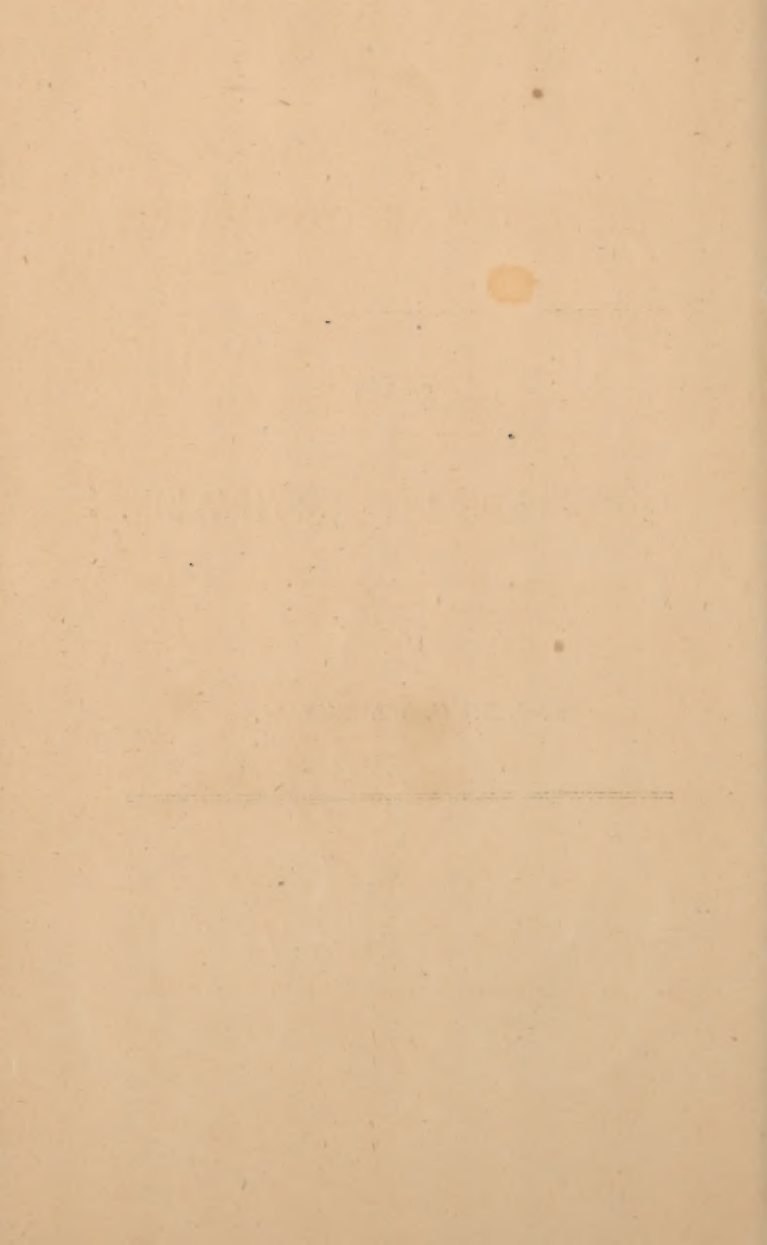
PREVENTION OF CONSTIPATION.

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By JOHN C. WARREN, M.D.

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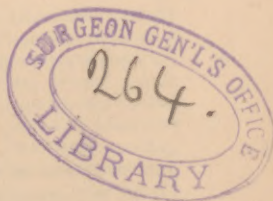
PREVENTION OF CONSTIPATION.

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M DCCC L.

DECLARATION OF INDEPENDENCE  
OF THE UNITED STATES OF AMERICA

1776

When in the course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which the laws of Nature and of Nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. — That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed, — That whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness.

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## PREVENTION OF CONSTIPATION.

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Πάντες μὲν γὰρ ἔκουσι συνελθόντες ἱκανὴν αἰσθῆσιν, καὶ  
μικνύμενοι τοῖς βελτίοσι τὰς πόλεις ὠφελοῦσι, καθάπερ ἡ μὴ  
καθαρὰ τροφή μετὰ τῆς καθαρᾶς τὴν πᾶσάν ποιεῖ χρησιμωτέραν  
τῆς ὀλίγης· χωρὶς δ' ἑκαστος ἀτελὴς περὶ τὸ κρίνειν ἐστίν.—  
*Aristotle's Politics*, vol. i., book iii., chap. vi., sect. 7; edition of  
J. Barthelemy St.-Hilaire. Paris, 1837.

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"It remains, therefore, that the people at large be entrusted with the deliberative and judicial powers of government; because the members of assemblies, senates, and courts of justice, acting not individually, but collectively, prove mutually assisting to each other. In such popular tribunals, virtue and passion, reason and sentiment, courage and wisdom, are harmoniously blended into one salutary composition, in which even the grossest ingredients are not without their use; for experience teaches, that *the purest nourishment is not always the best, but that FINE FLOUR IS MOST WHOLESOME WHEN MIXED WITH THE COARSE.*"—*Aristotle's Politics*, book iii., Gillies's translation, third edit., p. 216. London, 1813.

THIS extract from Aristotle, which I have lately met with, comes to the support of a practice adopted by me many years before I had seen the passage. It consists in the use of unbolted wheat meal, and of a very coarsely ground wheat, for the prevention and cure of a constipated state of the bowels.

The retention of any of the habitual excretions produces derangement of the animal economy. The suppression of the cutaneous exhalations is followed by local inflammation. The suppression and retention of urine bring on a sudden paralysis of the nervous system; and the suppression and retention of the contents of the alimentary canal produce indigestion, foul breath, hemorrhoids, chronic headache, cutaneous affections, and, in fact, a vast number of diseases, which, though not all arising directly from this source, may be traced to its remote and gradual influence.

Constipation of the bowels is frequent in persons of sedentary habits, especially those called by profession to constant mental occupation; while bodily activity and a correspondent inception of food protect the cultivator of the soil. The most common cause of this evil would therefore seem to be an inert state of the bowels, from want of exercise and want of sufficient stimulus from food. Weakness of the bowels, a want of sufficient mucous secretion, and, above all, a want of a sufficient quantity of healthy bile, are also common causes. The bile being the natural purgative, its deficiency will, of course, leave the intestines in a torpid condition, and thence it happens that, in persons constitutionally costive, the liver is found to be in many cases unnaturally small. Dry atmosphere predisposes to this affection, and we find, therefore, that the inhabitants of the eastern parts of the United States are more disposed to it than those of the damper climates of England and Holland. For this reason it is, no doubt, that the latter are able to make great use of



astrigent wines with less consequent inconvenience than the former. Our constitutions cannot tolerate them.

The use of improper articles of food is a frequent cause of constipation. Food is composed of two kinds of substance, possessing different properties; one soluble and nutritious, the other insoluble and non-nutritious. The former is taken up, in a great measure, by the absorbent vessels, and conveyed into the blood. The latter, the non-nutritious, remains in the intestines, stimulates their action, and is subsequently expelled. One of the most remarkable of the nutritious substances is fine flour, a very common article of food. This, in its varied preparations, unless counteracted by some other article, is an indirect cause of costiveness; and the reason is, that its particles are in a great measure absorbed. The same is true of other substances containing a considerable proportion of nutritious matter. Such are jelly, arrow-root, starch, milk, and its preparations. I knew a learned gentleman troubled with dyspepsia, who had come to a conclusion to live wholly on nutritious substances, which, being easily absorbed, he thought might be taken without inconvenience. After he had employed this kind of food for some weeks, the intestines ceased to act with sufficient energy. It was even difficult to excite them by medicinal substances, and he came near losing his life.

The insoluble part of the food is of no use for the purposes of nutrition, since every substance to be taken up by the absorbent vessels must be in a state of solution. Such are the coverings of seeds and fruits,

woody fibre, etc. Skins of fruits, especially dried fruits, which have been eaten, are constantly seen in the evacuations. Seeds, as those of mustard, etc., are well known to pass through the whole intestinal tract in an unchanged state, in consequence of the insolubility of their outer coats. Hence it happened, when these articles were medicinally employed, some thirty years ago, that the intestines became ultimately filled with insoluble matter, actually plugged by them, in such a way that nothing but mechanical means were sufficient to remove the obstacle and save the patients' lives. In these instances, I relieved them, not without much suffering on their part and much trouble on mine, by breaking down the concreted substances with small pokers, and extracting them with scoops and forceps. The same kind of obstruction is said to have been produced by accumulation in the intestines of the remains of undigested nuts and raisins.

A great alarm has been excited in regard to magnesia, because some persons have died from its excessive use, and the intestines, it is stated, have been found paved with it. This is all very natural. Magnesia is an earth, insoluble in the human stomach to any considerable extent. When it is taken in small quantities, and of the best quality, it unites with, and is neutralized by, the acids it meets with in the digestive tube — hydrochloric, carbonic, lactic, etc. — and salts more or less soluble are produced. But when the quality of the magnesia is bad, and the quantity great, the acids of the digestive canal are inadequate to its conversion into a salt, and, mass being thrown in upon mass, the



intestines will ultimately be clogged and sometimes wholly blocked up.

The immediate consequence of the retention of excrementitious matters is the absorption and passage of part of them into the blood. For, although there seems to be a natural repugnance in the intestinal lacteals to the absorption of excrementitious matter, this repugnance may ultimately be overcome, and absorption of the fecal contents of the intestines take place. The consequences will be offensive breath, dyspepsia, cutaneous eruptions, etc., as stated above, and an impure state of the whole mass of blood.

*On the Remedies for Chronic Costiveness.*—The principal of these are either medicinal or alimentary. Of the former, I shall mention only four—aloes, magnesia, the extract of dandelion, and the wine of senna produced by fermentation. The bitter quality of aloes seems to render it a proper substitute for the natural purgative, bile. A few grains of the substance of this gum in the state of powder are a mild and effectual purgative. The watery extract, or inspissated solution, in the dose of from five to ten grains, combined with an aromatic, such as a drop of oil of anise or oil of nutmeg, taken fasting, is one of the mildest laxatives I know of.

It is the common practice to take a laxative medicine at night. There are objections to this, because the stomach usually contains a quantity of food, and the medicine being intermixed with this is sometimes too much diluted, sometimes altogether buried in the alimentary mass, and thus becomes ineffectual. Another objection to taking medicine at night is its having the

effect of disturbing the repose, especially if the patient be of a nervous temperament. The proper time, therefore, is when the stomach is empty, as before dinner or before breakfast.

The mildest though not the most certain, of all laxatives, is pure magnesia. This useful preparation, as made by English chemists, may be taken in the dose of a teaspoonful in two thirds of a wine-glass of water, with the addition of four or five drops of tincture of peppermint, at night, being therefore an exception in this respect to other laxatives. It is so mild that it does not disturb the night's sleep, and, combining, as it does, with the acids which have been generated in the stomach during the day, it is likely to be more completely neutralized under this circumstance, and to have a more certain effect. When the stomach is not acid, the juice of half an orange will aid its operation.

The extract of dandelion combines a tonic with a laxative virtue. Many think it is to be preferred to other laxatives, because its action causes less sinking of the bowels than other medicine. A moderate dose is a tea-spoonful, or about one drachm; but many persons require double or triple this dose. The way in which I have recommended it to be taken is, to dip a tea-spoon into ginger syrup, then to spoon up the dandelion and dip again into the syrup, when it may be swallowed very conveniently.

The fourth substance, which I have employed lately with much satisfaction, is the wine of senna, produced by the fermentation of infusion of senna with sugar, according to the process of Dr. Butler Lane. The

dose of this for an adult is from half an ounce to two ounces; being slightly stimulating, it may be taken for an oppressed stomach at night. If used in the morning on an empty stomach, it should be diluted with an equal quantity of water.

*Injections.* — It would not be proper to pass over injections, so generally employed abroad and so little in this country. Their application is to be preferred, when it answers, to any cathartic. A valuable use of this remedy has been introduced by the followers of the much extolled and much denounced Broussais, on the supposition that it would extinguish inflammation of the intestinal mucous membrane. Cold injections into the rectum were proposed by them, and it was shown that cold water might be thus employed without alarming consequences. For the relief of the bowels, the prevention and cure of hemorrhoids, the mitigation of urinary and uterine derangements, cold water, in quantity from a gill to a quart, is most valuable. Fifty years ago, I first heard of a distinguished lady who was in the habit of dashing the abdomen with cold water for the relief of the bowels. This fact, considered so wonderful at the time, made a deep impression on my mind, and led me to recommend for this purpose, with excellent effect, a sponge with cold water or the hip-bath, and finally general shower-baths.

*Articles of Food.* — The most important of the remedies applicable to this case, are to be found in articles of food. A few individuals have discovered something of this kind which suits the exigencies of their constitution, and carries them comfortably through

life. The greater part of those subject to this derangement are obliged to temporize with their trouble, and employ different substances under different conditions.

Fruits are among the most useful and agreeable of these. Fresh fruits are preferable to dried, because a large portion of the latter consists of a skin, which is with difficulty attacked by the gastric fluid. Whether fresh or dried, fruits, if used to aid the bowels, should be taken when the stomach is free from other food, especially before breakfast and before dinner. The use of fruit after a regular satisfactory meal of meat and vegetables, is a common cause of cholera, and other disorders of the bowels, by bringing on the acetous fermentation. Fruits and vegetables produce their laxative effect by their acid and saccharine qualities, and also by the bulk of their effete or insoluble portions. The laxative vegetables are not very easily digested by patients who have weak stomachs, and they are often obliged to abandon them, on account of the distressing flatulence which follows their use. On the other hand, I have seen a beneficial effect from acids in some peculiar cases. Some children, after weaning, become excessively costive. I have known this state to be altered by an infusion of cranberries, slightly sweetened. It is likely that any other smart acid would have the same effect. Some individuals find great advantage in drinking a glass of cold water before breakfast, and it is a practice of others to drink a cup of strong coffee, before rising in the morning. The use of these drinks must be accommodated to different constitutions.

Animal food has rather a laxative effect than the

reverse, perhaps by the animal oil intermixed with its fibres. Fatty substances are uniformly laxative, but they are also uniformly unmanageable by weak stomachs. The Laplanders, and other inhabitants of very cold regions, as well as a certain number of individuals elsewhere, are able to take, in large quantities, the fat of various animals, without exciting a revolt in the stomach.

I have known individuals to use great quantities of wine, under the belief that the bowels would not move without. The laxative effect in such a case would arise from the pressure made on the intestines by the bulk of the liquid. Perhaps, again, the wine taken in this way exerts a toxic influence, which causes the bowels to throw it off; and this notion is confirmed by the fact that this practice, so far as I have seen, has uniformly terminated in dropsy, or some other chronic affection. Most of the wines I am acquainted with, when taken in moderate quantities, constrict the fibres of the intestines, and produce costiveness. This is certainly the effect of sherry, Madeira, and other strong white wines; and still more so of brandy and every form of alcohol. The use of such articles, in the way last mentioned, having a stimulating effect, is followed by indirect debility and constipation.

The cerealia were perhaps the earliest, the most general, and the most valuable articles of human food. Wheat, rye, barley, oats, and maize are employed in different countries, according to the properties of the soil and the taste of the inhabitants. Wheat seems to be more extensively used than either of the others,



and is, perhaps, the most palatable and the most digestible. This grain is not used entire. It consists of, principally, two substances; the coverings, or part containing, and the flour, or part contained. In the early ages of the world, these were probably employed together; but art has been directed to their separation, and has reduced the flour, as nearly as possible, to the state of an impalpable powder.

Flour, taken apart from its coverings, has a most constipating property. Its great use by the inhabitants of towns and cities will, therefore, go far to explain why constipation is so general. The separation of the coverings from the flour, as usually practised, seems to counteract the intentions of nature, which undoubtedly destined them to be employed together.

The external skin of the grain, thus thrown away, contains various important properties; and, instead of being in a great measure rejected, it should be altogether preserved and ground up with the flour. This substance, which is known by the name of bran, is the part which prevents the flour from producing costiveness.

About the year 1825, I began to use bread in which the bran was retained; and after having employed it a considerable time in my own family, I ventured to recommend it to others. For some time it was ridiculed under the name of saw-dust bread; but finally, in a very slow way, it came to be employed by a large number of persons, its valuable properties were ascertained and admitted, and it has now come into general use. In a tour through Europe, about twelve years since, I found that this same bread was becoming an article of food for the upper classes in London,



Paris, and Rome. Among poor people, a brown bread is employed in most countries of Europe ; and, probably, has been from time immemorial. In Germany, horses are advantageously fed on it while travelling.

Some years ago, it occurred to me that, as the brown wheat bread was beneficial on account of its coarseness, but was not sufficiently active in all cases, it might be well to use the wheat in a coarser state, and without making it into bread. I therefore directed some wheat to be ground in a coffee-mill, and, after boiling three or four hours, a little salt having been previously added, it was found very palatable. This substance has a better effect in preventing constipation of the bowels than any article I have ever met with, after a great number of years of observation and inquiry. When the stomach is very weak, it will not bear it in sufficient quantity to answer the purpose. But for costive people in general, it will produce quite a remarkable revolution, and a consequent favorable change, in the appetite and general health, when taken in the right quantity ; and this I consider to be about twelve ounces for an adult. It may be used at breakfast as a part, or, when the case requires a large quantity, as the whole of a meal, and at dinner as a substitute for puddings and vegetables. For the evening meal, I have rarely recommended it. By those who require some addition to render it savory, the substances which are employed with hominy for the same purpose, may be used, such as milk, butter, cream, or molasses. The sweet articles are not well borne by a weak stomach, especially molasses ; but when they can be used without inconvenience, they add to the efficacy of the wheat.

The preparation of it consists in washing clean in cold water, then in boiling from three to four hours, adding water, from time to time, sufficient to bring it out with about the consistence of hominy or boiled rice. The longer it is boiled, the more agreeable it is, but less effectual. A moderate degree of fluidity, that is, less than that of boiled rice or hominy, renders it more laxative.

The principles on which the coarse wheat operates as a laxative are not very obvious. M. Millon has reported to the Academy of Sciences that the bran of wheat possesses various valuable properties not before known. Whether any of these are calculated to have a purgative effect, we know not ; but such may possibly be the fact. I have been led to believe, however, that the wheaten bran operates in two ways : first, by the stimulus of the edges of its branny particles ; second, by mere bulk. It may be supposed to operate in the first mode by the undissolved portions of bran acting on the mucous coat of the intestines, exciting thereby the nervous energies of the parts, and producing contractions of the muscular fibres. Secondly, bulk is necessary to keep up the action of the bowels, as has been already shown in the allusion to the effect of highly nutritious substances, which, being in a great measure taken up by the lacteals, leave no mass of insoluble matter to fill the calibre and excite the action of the intestines. People who eat much food are more regular in the bowels than those who eat little ; though they may be obliged to pay for this advantage by the injury done to the overburdened stomach. These ideas are supported by the fact already mentioned, that seeds

and other insoluble matters have the effect of urging on the torpid peristaltic action.

Superfine flour bread, as has been stated above, is not a healthy article of food for man nor animals. Dr. Truman,\* in his "Rules for Diet," says: "The French plan of eating enormous quantities of bread at dinner is unwholesome for most people, unless they take very violent exercise; a very liberal allowance of bread is always apt to induce headache, and a confined state of the bowels." Animals, so far as I have observed, do not like, and, for the most part, cannot live upon fine bread; whereas many animals, even carnivorous, can subsist on coarse wheat bread. Dogs, according to the French physiologists, die after feeding about three weeks on fine bread, but will live on coarse bread an indefinite time. Birds are very fond of coarse bread and of cracked wheat hominy, which they eat with avidity; and it agrees with them. There is reason to believe that the vertebrated animals generally can be subsisted on coarse bread, but not on fine. Many persons object to coarse bread, that it is not so agreeable as fine. This sentiment is the result of habit, for those who have been accustomed to use the coarse bread, for a reasonable time, find it sweeter to the taste, and more satisfying to the stomach, than the other. It seems then unfortunate that an article of food, which is deficient in some principle necessary to its healthy action on the animal economy, should have been so long employed, and so widely spread among the population of

\* Truman on Food, p. 161. London, 1842.

cities, and, in truth, among a great mass of people elsewhere.

My authorities for these experiments I am unable, at this time, to quote, many years having elapsed since I read them; but, as they were published in the popular journals, they are probably well known to the profession generally.

Since I have made use of the coarse wheat, I have had frequent communications on the subject with professional friends, as well as with a great number of other individuals, and find that they are satisfied of its valuable effects. This being so, it may be thought that the subject should have been brought before the public at an earlier period. The reason why I did not do this was, that it seemed too simple a matter to trouble the public with; and I also thought it very probable that a substance which I had found so efficacious, (I mean the wheat hominy,) and which must have been employed as food from the earliest ages, might have been recommended in some work I had not met with. The long period during which I have seen its effects not having enabled me to discover that it had anywhere been formally and distinctly advised, it has appeared more proper to give the public a distinct knowledge of its use, than to hold it back because it may have been recommended by other people.

I cannot conclude without repeating that, of all the articles of food, which, in the course of fifty years practice, I have had occasion to recommend for the prevention of a constipated state of bowels, and its consecutive evils, this cracked wheat is incomparably the most effectual.



